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Title: An Insight into Mothers of Low Socio-Economic Status' Involvement in Scottish Primary School Health Education Activities

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Abstract

School-based health activities that involve parents are more likely to be effective for child health and wellbeing than activities without a parent component. However, such school-based interventions tend to recruit the most motivated parents and limited evidence exists surrounding the involvement of hard-to-reach parents with low socioeconomic status (SES). Mothers remain responsible for the majority of family care, therefore, this study investigated mothers with low SES to establish the reasons and barriers to their involvement in school-based health activities and propose strategies to increase their involvement in those activities. Interviews were conducted with mothers with low SES, who were typically not involved in school-based health activities (n = 16). An inductive-deductive approach to hierarchical analysis revealed there are several barriers resulting in mothers being less-involved, particularly due to issues surrounding the schools' Parent Councils and exclusivity of school-based events. Efforts made by the school to promote health activities and involve parents in such activities was revealed, alongside recommendations to improve upon these practices. The findings offer multiple ways in which future school-based health interventions can recruit and involve mothers with low SES.

Keywords: children, mothers, health education, socioeconomic status, parents

Introduction

Schools are one setting recommended by the World Health Organisation (WHO) as an ideal site to implement activities that encourage children to improve their health and wellbeing. Currently the UK government are encouraging schools to address health issues (e.g., Public Health England, 2015) and there are a wide variety of activities which can occur; health-promoting teaching practices, classes on health and wellbeing topics, school projects or challenges, physical activity (PA) breaks during school time, health-related homework and after-school clubs. Researchers have evaluated numerous school-based health interventions focussing on the key determinants of health including mental wellbeing, nutrition, sexual health and PA (Lloyd et al., 2018; Mackenzie & Williams, 2018; Sani, Abraham, Denford, & Ball, 2016). However, findings from recent systematic reviews and meta-analyses have demonstrated equivocal results (Evans, Christian, Cleghorn, Greenwood, & Cade, 2012; Love, Adams, & Sluijs, 2018; Mackenzie & Williams, 2018). Indeed, school-based interventions can have positive effects on children's health in the short-term (Gonzalez-Suarez, Worley, Grimmer-Somers, & Dones, 2009) however there is a lack of evidence regarding the sustainability of such effects (Evans et al., 2012; Verjans-Janssen, van de Kolk, Van Kann, Kremers, & Gerards, 2018). Further research is needed to identify health initiatives and activities which schools can implement to create long-term health benefits.

Involving children's proximal adults (e.g., parents) in school-based health activities could be a crucial way of improving the sustainability of positive outcomes, by encouraging positive health behaviours at school and at home. School-based health initiatives involving parents have revealed promising health outcomes (Niemeier, Hektner, & Enger, 2012), and parents may be key contributors to the success of interventions (Van Cauwenberghe et al., 2010; Verjans-Janssen et al., 2018). For example, research has indicated that changes to dietary and PA behaviours of parents can influence such behaviours in their children (Blaine,

Kachurak, Davison, Klabunde, & Fisher, 2017; Yao & Rhodes, 2015). Furthermore, systematic reviews suggest that school-based health interventions involving parents are more effective than interventions without a parent component (Van Cauwenberghe et al., 2010). Thus, efforts to enhance parent involvement in such interventions are crucial and often proposed (Kipping, Jago, & Lawlor, 2012; Ruiter, Fransen, Molleman, Van der Velden, & Engels, 2015), but for whom these recommendations are for is unclear.

Many researchers struggle with the recruitment and retention of parents of low socioeconomic status (SES) (Robinson, Adair, Coffey, Harris, & Burnside, 2016); a limitation which is common within school-based health interventions (Norman, Nyberg, Elinder, & Berlin, 2016). Moreover, parents with low SES tend to be less involved their child's education than more affluent parents (Roksa & Potter, 2011) and experience multiple barriers to being involved (Hornby & Lafaele, 2011). As such they are also less likely to engage in additional activities such as school-based health initiatives. Whilst robust recommendations exist to engage parents of varying levels of SES in school activities (Reid, Eddy & Fetrow, 1999) these are provided in the context of children's academic achievement and behaviour. Whether the recommendations are appropriate for engaging within school-based health initiatives is unclear. Furthermore, it is unclear if proposed recommendations to enhance parental involvement in school-based health interventions (e.g., Centers for Disease Control and Prevention, 2012) would be relevant for those who are typically uninvolved, with low SES. As it is important to ensure that health interventions are accessible and inclusive to all children, more information regarding the experiences and involvement of these hard-to-reach families with low SES in school-based health programmes is needed.

Mothers remain responsible for the bulk of family care regardless of their employment status (Craig, 2006; Sayer & Gornick, 2012). Mothers play an essential role in their child's development and are highly influential in their children's health outcomes. For

example, maternal care behaviours play an important role in children's weight (Rodgers et al., 2013) and mental wellbeing (Stafford, Kuh, Gale, Mishra & Richards, 2016). It is therefore important to understand the specific reasons that deter mothers with low SES from being involved in school-based health activities so that specific strategies and recommendations can be provided to encourage their future involvement. Therefore, this study aimed to interview mothers with low SES, who are not typically involved in school-based health activities, to establish the reasons and barriers to their involvement, and gain insight into their perceptions of school health initiatives. Based on this information we propose strategies that schools can use to increase parent involvement in future school-based health activities.

Method

A qualitative approach was employed whereby interviewees were selected based upon questionnaire responses from a range of parents. From the questionnaire results, mothers who had low SES and were less involved in school activities were identified and then invited to be interviewed.

Recruitment

Institutional ethical approval was granted and participants were recruited using a face to face recruitment method across five primary schools within a 12-mile radius of the University conducting the current research. Three schools were serving deprived communities and two were in more affluent areas. Each school had a Parent Council which represent parents' views and encourage parents to be actively involved in school life. Parents were recruited via awareness building strategies (e.g., flyers, pupil assembly visits which were attended by parents), followed by in-person recruitment at parents evenings to increase the likelihood of recruiting less-involved parents. Parents' evenings are in-school events where teachers and parents discuss their child's academic and behavioural performance. All

parents are expected to attend and the events normally have very high parental attendance rates (Two Head teachers of recruited schools, personal communication, February 27th, 2019). During these events we set up a recruitment table and the 1st and 4th authors directly approached all parents who walked past. Whilst at the stall, parents received information about the study and completed consent forms, a family involvement questionnaire, provided demographic information and were asked for their availability/times to participate in a telephone interview.

Eligibility Criteria and Instrumentation

Eligibility criteria for the interviews included: (a) the mother of the child, (b) scored below the median response of parents in the sample (below 2) on the Family Involvement Questionnaire- Elementary (FIQ-E ; Manz, Fantuzzo, & Power, 2004) and (c) low levels of SES based on an index of deprivation linked to their home address which suggested they resided within 20% of the most deprived areas in the country ([redacted] 2016).

The FIQ-E (Manz et al., 2004) is a validated self-report scale measuring parent involvement in school activities using three subscales: school-based involvement, home-based involvement, and home–school communication. For the purposes of the current study, the 13 items from the school-based involvement subscale were used to select mothers who had lower than median levels of school-based involvement. The FIQ-E was deemed relevant for this study as it has been tested with lower-income urban caregivers of children attending primary school (Manz et al., 2004) and has demonstrated good factorial fit according to conventional criteria (Hu & Bentler, 1999) and excellent internal consistency (α = .91-84).

The [redacted] Index of Multiple Deprivation ([redacted]) identifies areas of deprivation across all of [redacted] in a consistent way. [redacted] ranks small areas from most deprived (ranked 1) to least deprived (ranked 6,976) which are then converted into a relative decile

score between 1 and 10 (1 being the most deprived areas and 10 being the least deprived areas). Scores for each area are calculated based on objective criteria across 6 domains; residents' income, employment, housing, health education, skills and training, and geographic access to services and telecommunications (see [redacted] for more information). [redacted] scores for all locations in [redacted] were publicly available at the time of the research and were used to select participants with low SES based on the location of the participant's home address scoring a decile score of 2 or below.

Participants

Parents (n = 132) completed an informed consent document, provided demographic information and completed the FIQ-E. Of the 132 parents who completed these forms (113 female, 19 male), 120 agreed to be interviewed. Of the 120 parents, 24 eligible mothers were identified and 16 mothers were interviewed. All eligible mothers were contacted by telephone up to four times, five mothers were contacted but did not answer the telephone, and three rearranged the call for more convenient times but failed to answer subsequent calls. The mothers in our study (35.88 *M*age ± 7.67 years) included single parents (n = 5) and co-parents (n = 7); some mothers did not specify their family type (n = 4). Of these mothers, 11 were employed, four were unemployed, and one was a student. The highest educational qualifications obtained by mothers were; lower secondary school qualification (n = 2), upper secondary school qualification (n = 2), college qualification (n = 3), a University qualification (n = 1), a degree qualification (n = 1), and some mothers did not report any qualifications (n = 7).

Interview Procedure

All interviews were conducted by the first author, a female researcher with four years of experience conducting qualitative inquiry including a Masters of Research (MRes) in qualitative research. She was completing her PhD at the time of the interviews. The

interviewer grew up in an area of deprivation ([redacted] 2) near to the recruited schools however none of the participants had met the interviewer prior to study recruitment. Interviews were conducted via telephone using a semi-structured interview guide with questions centred on healthy lifestyle promotion at school and parent involvement within health activities at school (See supplementary file for complete interview guide). All interviews were audio recorded and lasted on average 43.34 mins (± 12.20). Pilot interviews were conducted with a random selection of mothers recruited from the first school visit (n = 6 out of 11) and recordings were reviewed by both the first and fifth authors upon which small amendments were made to the interview guide. Of these six pilot participants, only one met the inclusion criteria of being less-involved, with low SES. This mother was interviewed again to cover the alterations made to the interview guide and her pilot interview (22.25 mins) and additional interview (16.21 mins) was included in the analysis. No other pilot data was included in the final analysis. For anonymity purposes, all participants were assigned a participant number. The interviews were then transcribed verbatim by an independent transcription company[1].

Data Analysis

An inductive-deductive approach using hierarchal content analysis was taken to develop knowledge concerning our subject and the experience of the participants (Sparkes & Smith, 2014, p. 273). A social constructivist philosophy was adopted focusing on understanding how the mothers constructed their own reality of being involved in school activities (Patton, 2002, p. 97). The first author undertook the qualitative analysis by first reading the transcripts whilst listening to the interviews to become familiar with the data. Using NVivo 11, she then independently examined the transcripts and each comment or meaningful unit was identified and labelled inductively as nodes. Then similar nodes were grouped together according to both; the key research questions and emergent ideas. We sought to establish themes with internal homogeneity (where all nodes in one theme share

meaningful characteristics) and external heterogeneity (the differences between nodes in different themes are clear) and grouped themes into higher order themes. Ensuring rigour and transparency in analysis is a vital component to assess the quality of research (Gale, Heath, Cameron, Rashid, & Redwood, 2013). Thus, to ensure quality in the analysis, the second, third and fifth authors who were not present during data collection, independently reviewed the data at several stages of the analysis and multiple iterative discussions between all the authors took place to ensure the representativeness of themes. An opportunity for member checking was provided by disseminating an overview of themes to all parents via email. One mother replied via email seeking to differentiate her views from those of other mothers. She was reassured that the themes represented all mothers' views, rather than solely her own views.

Results

Four overall themes emerged from the data: (a) barriers to being involved in health activities at school, (b) active ingredients to being involved in health activities at school, (c) school efforts, and (d) recommendations to the schools (see Figure 1).

Barriers to Being Involved in Health Activities at School

The barriers which deter mothers from being involved in school-based health activities were grouped into second-order themes; personal circumstances, child influence, issues with events, issues with the Parent Council and a disconnect between the school and parents (see Table 1).

The mothers discussed personal circumstances as barriers to their involvement including having additional commitments such as attending college, other child related-activities (e.g., sports clubs) and employment (e.g., shift work). Being a single-parent was a barrier to involvement for some mothers, particularly as it often wasn't possible to bring their other children to the school events (quote B.2 Parent 10). Also, a lack of time was cited as an

issue and some mothers discussed that they would rather not spend the free time they did have being involved in school activities. Some participants also had a general disinterest in being involved in such activities and did not view their involvement as important. As well as personal circumstances, it was suggested that the child and their preferences could also deter involvement, particularly if the child was older, or experienced issues such as anxiety (quote B.1 Parent 1).

There were several barriers which deterred mothers from being involved in specific school events such as practical issues (e.g., obtaining tickets) and issues related to the safety and the social aspects of the events. Most notably, mothers consistently discussed the timing of events which acted as a barrier to their involvement in school-based health activities. For example, mothers were unable to attend events being held during school hours due to employment. Mothers also discussed the timing of events as being difficult particularly if weekly sessions take place on the same day and they have unpredictable and inflexible work schedules.

To ensure the safety of children in [redacted] certificate is required for adults to work with children, which was reported as a barrier to volunteering at school as some mothers did not have a [redacted] certificate or know how to obtain one. Furthermore, some mothers indicated that due to recent revelations of abuse by those working with in sport, a fear of allegations could deter some parents from being involved as volunteers (quote B.3 Parent 15).

In reference to the social aspects of school-based health activities, some mothers lacked confidence to be involved and not having other parents as friends could deter some parents. Furthermore, mothers suggested that it was often the same parents attending events, who were most likely to be affiliated with the Parent Council. The Parent Council are a group of volunteer parents who meet regularly to work with the school to represent the views of

parents/carers and encourage links between the school and parents. The Parent Council groups are often pivotal to organising health-related activities in schools (e.g., sport days, fundraising events for playground equipment and sports clothes) and were repeatedly described as “cliques” with mothers feeling neither liked nor supported by the Parent Council. Furthermore, mothers not being made aware of Parent Council meetings, not knowing what the Parent Council do, and the timing of council meetings were highlighted as barriers to their involvement. Indeed, some mothers suggested that they would rather speak and feedback to teachers directly in fear of how information could be relayed by members of the Parent Council (quote B.4 Parent 16).

More generally, mothers also suggested a degree of disconnect between the school and parents, as they did not know who to talk to about health-related activities, they were not always made aware of activities taking place and, in some situations, teachers failed to follow up with parents who were interested in being involved (quote B.5 Parent 14). In general, some mothers did not feel they had a partnership with the staff, and it was difficult to access teachers and discuss health-related activities with them.

Personal Active Ingredients to Being Involved in Health Activities at School

The data related to personal aspects which encourage parents to be involved in health activities related to child and family influence (see Table 2). Both the mothers’ and their child’s interest in activities and perceiving benefits to their child would encourage these mothers’ participation in health activities (quote A.I.1 Parent 11). Specifically, the opportunity to create life-long healthy habits, set a good example to their children, provide enjoyment for their child, and improve their relationship with their child via shared activities, all encouraged parents to be involved (quote A.I.2 Parent 2). Extended family involvement (e.g., the possibility of grandparents attending events) was also highlighted as a method of

facilitating more home-school connection and family involvement in school-based health activities (quote A.I.3 Parent 1).

School Efforts

The mothers recognised efforts made by the school regarding healthy lifestyles, parental involvement, and communication with home regarding health activities (see Table 3). Mothers identified numerous health activities run by the school to encourage healthy lifestyles including PA events (e.g., walk to school, sports day, afterschool clubs and the daily mile) and dietary-related activities (e.g., cooking classes, promotion of healthy snacks and garden club). Most of such activities were free for the children and overall the mothers held positive views of the schools' encouragement of healthy lifestyles. In some schools, the mothers thought rewards systems where children received class points for healthy behaviours encouraged positive behaviour (quote S.E.5 Parent 1). Whilst these activities were geared towards the children's health behaviours, many activities involved or depended on parents including, assisting their children to take healthy snacks to school and walking younger children to school. Mothers also provided recommendations to improve the promotion of health activities at school including hosting a healthy buffet and the possibility of providing a variety of different foods to promote healthy eating in children (quote S.E.8 Parent 8). Mothers also recommended increased extracurricular clubs and activities to promote PA time.

The participants discussed school efforts to encourage parents to be involved in health activities. Parents were invited to discuss the health curriculum and encouraged to take part in healthy eating activities with their child. Some schools asked for volunteers on a "bank basis" where they would request the participation of interested parents when required. These extracurricular events included Parent Council events, parents' night, and sports day. One schools' consideration of religion towards diet and sporting activities was positively recognised (quote S.E.4 Parent 14), as those with specific religious beliefs reported that they

were often contacted to check that diet and sport-related activities were appropriate for their children.

The mothers discussed ways in which the schools communicated with regards to school-based health activities (e.g., letters and newsletters, school websites, the school Facebook page, via notes in the children's homework diaries, information days; quote S.E.1 Parent 15). The mothers preferred printed-out information (e.g., newsletters) over e-resources (e.g., websites), as they were less likely to forget about upcoming events if they were on display (e.g., on the fridge). Some mothers did not know whether their child's school had a website (quote S.E.2 Parent 4) and suggested they mostly received information via their child rather than the schools.

Recommendations to Improve Parent Involvement in School-based Health Activities

A host of recommendations were provided including; increasing communication, new methods of encouraging parent involvement, improving current parent recruitment strategies, and improving the promotion of health activities at school (see Table 4).

The need for more effective communication was consistently emphasised. Most notably, mothers considered an increase of information both in relation to parent involvement and health activities at school, to be of the utmost importance. Mothers recommended increasing the inclusivity of Parent Council meetings as a way of increasing information (quote R.1 Parent 4).

Encouraging parent involvement was also recommended by the participants, and recommendations were offered including; hosting coffee mornings, text message systems, parent-child joint activities, school trips and home-based activities. Mothers also suggested that parents and teachers could work together to design a parent involvement programme (quote R.2 Parent 11). Ways in which parents themselves could encourage parent involvement in school-based health activities were highlighted including electing a parent

champion (quote R.3 Parent 16) and encouraging more communication between parents. In terms of improving upon current parent recruitment strategies, mothers recommended providing parents with more information of meetings beforehand, as well as providing sufficient notice of these meetings and school events. Moreover, participants suggested providing parents with various event times to accommodate all parents would increase recruitment (quote R.4 Parent 12).

Discussion

These findings revealed that the mothers in our sample face multiple barriers to their involvement in school-based health activities including; single parent status, unpredictable working patterns, a lack of confidence to feedback to the school and not feeling liked or supported by parents within the Parent Council. Previous research suggests that conflicting commitments and a lack of time are barriers for all parents' involvement in school activities (Murray et al., 2014), however the unpredictability of these mothers schedules alongside their fears and lack of confidence seem to be related to their specific experiences. Therefore, it could be suggested that the barriers these mothers face are exacerbated by the effects of their low SES. Some mothers did not want to be involved and viewed the school and home as separate environments, whereas others wanted to be involved but felt that the school did not encourage their involvement. Whilst mothers with low SES face some similar barriers to parents who are more affluent (Murray et al., 2014), the current results suggest that some mothers with low SES have lower motivation and experience more barriers to being involved in school-based health activities.

The current findings accord with previous work regarding a lack of confidence amongst mothers with low SES, who can be overlooked by schools (Lavee & Benjamin, 2015). Indeed, low self-efficacy levels of mothers with low SES have previously been highlighted as a barrier to involvement, as parents with limited educational backgrounds

frequently lack the confidence to interact with teachers (Kim, 2009). They may also be vilified or blamed for not conforming to standards set by more affluent parents (Gillies, 2006). Requests for parent involvement have often been left unscrutinised in relation to the advantage provided to parents of specific social groups and the demands it imposes on socially vulnerable parents (Theodorou, 2007). Thus, schools should review whether their standard way of working with parents favours more affluent parents and whether changes can be made to increase the inclusivity of parent-related activities.

Self-Determination Theory (SDT; Ryan & Deci, 2000a) could offer a theoretical explanation regarding the low levels of parental involvement of the mothers within our study, as these participants did not feel competent in the school environment, lacked relationships with other parents and staff, and did not know how to autonomously feedback to the school. For example, Parent 13 within our study expressed how lack of friendships within the school meant she did not get involved in school activities. “Well there's not many friends I have in that school… like, mums. I just pick up the kids and bring them back.” SDT would suggest that such negative experiences may have impacted on mothers’ need satisfaction and their subsequent motivation to be involved (Ryan & Deci, 2000b). Indeed, a study which examined parents’ motivation to be involved in schools suggested that higher autonomous motivation in mothers’ was associated with higher levels of involvement (Grolnick, 2015). Therefore, SDT could provide a theoretical framework which supports the needs of hard-to-reach parents in future school-based health interventions.

Social Identity Theory (SIT; (Tajfel & Turner, 1979) may also explain the influence of social groups on these mothers. SIT suggests that a person’s self-concept derives from the groups to which the individual belongs. An individual will compare their own in-group against other out-groups, tending to view members of competing groups negatively to increase their own self-esteem. If a Parent Council has a strong group identity as an exclusive

'clique' they would be likely to view less involved parents negatively and may discriminate against them. Parent 4 raised this issue, "It always seems to be the same people that are attending. It's always the people that's close to the school, so then you don't want to attend… There are a lot of people that are really cliquey… they're in the Parents' Council and they get everything first." Parent 2 felt similarly regarding this issue, "I don't think they like me… The Parent Council has needed new members and I did consider it but I didn't go… I know half of the mums wouldn't vote me in." This could explain why some mothers felt excluded and disliked by the Parent Council, which acted as a barrier to their involvement in school-based health activities. Nonetheless, alongside barriers to involvement we identified positive influences which encouraged the mothers to be involved in health activities.

Personal active ingredients were discussed including the aid of extended family as a way of remaining involved in school activities, which has been highlighted as a facilitating factor in previous research (Bol & Kalmijn, 2016). The influence of their child was also noted as an active ingredient to involvement via perceiving potential benefits to their child's health, and opportunities to improve parent-child relationships. The benefits of parent involvement for children have been recognised in previous research (Hesketh, Waters, Green, Salmon, & Williams, 2005), however the current data suggest that some mothers with low SES seem particularly unaware of the positive influence they could have by being involved in school activities with their child. Therefore, when schools are running family-based health activities, it would be prudent to emphasise the relevant benefits parent participation could have for pupils. Indeed, providing parents with good reasons as to why they should participate or attend parental opportunities has been found to be a successful strategy for building bridges between low-income parents and schools (Jennings, 1992; Murray et al., 2014).

The schools' efforts regarding health activities was appreciated by the participants, however some aspects of communication could have been improved, as some mothers were unaware the school had a website and some felt the messages were mainly delivered via their child. Indeed, school websites are frequently cited as a useful means of parent-school communication (Piper, 2012). Mothers also felt the school could improve upon their communication regarding parent involvement, as some mothers stated that the school had failed to follow up when they expressed interest in being involved.

As a result of this research, there are a series of suggestions which could be used by schools, policy-makers and researchers seeking the involvement of mothers with low SES in school-based health activities. Parents suggested joint parent-child activities, school trips and home-based activities would be positive ways to increase their involvement in health activities. Our findings also highlight that using a variety of methods to communicate with parents regarding health activities could encourage less engaged parents to get involved (e.g., discussion groups, newsletters, homework diaries, social media, text messages). Schools should also consider the timing of events, the notice they provide to parents, and encourage other family members' participation to improve the home-school connection for families and parents with complex and conflicting demands. Mothers in the current study also recommended parents and teachers planning health activities together, having a parent champion for health activities, and parents inputting in the promotion of sports clubs. Indeed, the aforementioned recommendations echo previous research relating to parental involvement in health projects more broadly (Clarke et al., 2015; Raftery, Grolnick, & Flamm, 2012; Patino-Fernandez, Hernandez, Villa, & Delamater, 2013) and align with best practice recommendations to involve end-users in the design of school-based health initiatives (Craig et al., 2008; Patino-Fernandez et al., 2013). There are however, some recommendations which reflect findings that seem to be more specific to parents with low SES who are already

less involved. In particular, the data suggest schools could focus more on nurturing these parents' belief that their involvement in school-based health activities could make a worthwhile contribution to their own and their child's wellbeing. Furthermore, the Parent Councils who are frequently responsible for organising events at the schools were discussed as a barrier to parent involvement. Mothers described feeling excluded from the Parent Council and as such, schools should make efforts to the promote inclusivity and representation of families with low SES within Parent Councils. Furthermore, it would prudent to ensure that such committees do not become an overly powerful group of parents who run events without considering input from teachers and a diverse range of parents. Such methods are likely to increase parents feelings of autonomy, competence and relatedness, thus increasing their motivation to be involved (Grolnick, 2015). However, whilst parents suggested valuable methods to increase parent involvement, the cost implications of such activities would need to be considered to ensure parents with low SES would not be excluded.

There are several strengths within the current study. Due to our face-to-face recruitment methods, we interviewed 16 mothers with low SES, who were not usually involved in school-based activities. As such mothers were recruited who were unlikely to participate in research or school-based activities and their views were captured. However, this research is subject to limitations. Interviews were conducted in one region of the UK, therefore the themes identified may not be reflective of mothers' views in other locations and father's views are not represented. Indeed, the majority of research on parent involvement in school-based health activities focuses on mothers as the parent most likely to be the primary caregiver (Hill & Taylor, 2004). Future research could explore the involvement of parents in school-based health activities on a family level, taking into consideration the perspectives of fathers, siblings and extended family.

Despite decades of research, there are still a lack of interventions which effectively impact on children's health behaviours (e.g., Love et al., 2018). Indeed, including caregivers and home-based activities within the interventions is often cited as a method of improving the impact of school-based health activities (Bleich et al., 2018). However, school-based health interventions are often only attended by the most affluent and motivated parents (Clarke et al., 2015; Ruiter et al., 2015). Such interventions should aim to address health inequalities by recruiting and including parents with low SES who are typically uninvolved. As such these results offer valuable insight to schools, practitioners and researchers to encourage uninvolved parents to participate in school-based health activities.

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Footnote

[1] Dictate2us was the company used for the transcription of audio files for this study.

Table 1

Barriers to mother's involvement in health education activities at school

Second-order theme	First-order theme	Example Quotes
Child influence	Child being older and not wanting to attend school with parent Child enjoys activities on their own Psychological issues with child including separation anxiety	*'My son's a bit older now. He wouldn't want to go to school with me.' (B.1 Parent 1)*
Personal circumstances and commitments	Additional responsibilities Already takes child to other activities College commitments Employment (shifts) Parent would rather spend time with family on days off Parents only day off Unable to commit Keeping the home and school separate Lack of time Parent confidence issues Parents not having friends at school Not wanting to be involved/not seeing it as important Single parent status affecting involvement	*'I have no one to look after my son, so I can't really go down… so it makes it hard for some of the parents…single-parents.' (B.2 Parent 10)*
Issues with events	Events not running for long enough The timing of events doesn't suit schedule Fears of allegations being made against parents [redacted] certificate required Issues with obtaining tickets for events Pressure on parents for not being involved Same people attending events	*'Parents you know, they'd be good as coaches to teach the kids how to play football…you hear of so many bad things about coaches in football… that's maybe why a lot of parents don't want to get involved because of allegations…' (B.3 Parent 15)*
Issues with the Parent Council	Clique Feelings of not fitting in Not feeling liked Not feeling supported Not hearing about meetings Not knowing what the Parent Council do Parent Council members have communicated negatively Parent Council members put people off being a part of it Timing of meetings Would rather speak to school directly – fear of how things can be relayed	*'I'd rather speak to the teacher or head teacher… you don't know how it's going to be put across.' (B.4 Parent 16)*
Disconnect between schools and parents	Not being made aware of sport activities involving parents Not knowing who parents can talk to about health education Parents don't see teachers anymore to talk to School failing to follow up with interested parents	*'I was raring to go but this head teacher… moaned about not having resources to take kids out of classes. I said you know I've gave you my [redacted] I could be up there helping and you've not even phoned me.' (B.5 Parent 14)*

Note. [redacted]

Table 2

Personal active ingredients to mother's involvement in health education activities at school

Second-order theme	First-order theme	Example Quotes
Child influence	Being involved sets a good example to children Benefits to child health Child enjoyment at parent participating Child interest and encouragement for parent to be involved Creating positive health habits Parent involvement improving parent-child relationship	*'Just to set a good example to my own children. That it is good to get involved in things and it is good to keep yourself healthy and active. Just for them really.' (A.I.1 Parent 11)* *'[Parents and children] should be doing things together that would be a good idea to be able to do that. Also, for the relationships between the kids and the parents as well.' (A.I.2 Parent 2)*
Family influence	Extended family involvement Parent enjoyment required to participate Parent interest required to participate	*'My mum actually goes to sports days when I was out in college… or she would go to their parties that they had.' (A.I.3 Parent 1)*

Table 3

School efforts to encourage parental involvement in health education activities at school

Second-order theme	First-order theme	Example Quotes
School-Home communication of health activities	Letters are sent to parents Children pass on information from school to home Homework diaries and notes from the teachers in jotters Facebook can be used Information regarding when children will have PE Newsletters to inform parents of upcoming health activities Only contacted by teachers if issue arises Prefer newsletters over E-Resources (e.g., website) Unsure if the school have a website Website can be used to access information regarding upcoming health activities	*'We have got a Facebook page… I have notice parents voicing their opinion.' (S.E.1 Parent 15)* *'I like having a letter because I like to put it on my fridge… sometimes you forget to check your Facebook if you don't have time but if it's there in front of you, you can kind of have a glance at it and see what's on today.' (S.E.2 Parent 4)*
Healthy Lifestyle encouragement	Afterschool sports clubs Children walking to school without parents as they are older Cooking class No cost for in-school activities Daily mile Food from around the world workshops Garden club Healthy menu Healthy snacks activities and activities Parent happy with activity encouragement at school Consideration of religion Rewards system for healthy behaviour Sports day Walking to school School efforts impacting on healthy habits at home	*'The after-school club like health and fitness are always free, but it's just if it's maybe something that's run by somebody else out with the school, then they will charge.' (S.E.3 Parent 12)* *'Because of our religious beliefs we have certain things we don't want [child's name] involved in, and they always check… like karate and things like that… they always phone to check… they're very good at phoning. (S.E.4 Parent 14)* *'So that does encourage them… my wee girl has done it before and she's like that "I need to take an apple or something" and she says "Mum, I want to get a point'. (S.E.5 Parent 1)*
Efforts to encourage parent involvement	Asks for volunteers Asks parents to attend extracurricular events Involve parents in Kerb Craft (event in which parents walk with children to teach them road safety) Parent Council Involve parents in health eating activities Attending parents evening to discuss their child's development Involving parents in health curriculum School requests parent volunteers on "bank basis" Fundraising (bake sales, raffles and foodbanks) Sports day World of work week where parents attend school to discuss their jobs.	*'I can remember some things like, how kid's bodies are changing… they did ask parents to come in and ok the curriculum part they were doing in school.' (S.E.6 Parent 9)* *'…for parties they send out letters and ask you if you can get involved to let them know and they will use you for school trips or discos, I know they're looking for extra hands…' (S.E.7 Parent 6)*
Recommendations to improve health activities at school	Healthy buffet More promotion of healthy diets More extracurricular activities to promote physical activity	*If they're doing a healthy couple of days in the dinner hall where they will have I don't know, kinda like a buffet to encourage them to try different foods that are a lot healthier for you.' (S.E.8 Parent 8)*

Note. PE = physical education.

Table 4

Recommendations to improve parent involvement in school-based health activities

Second-order theme	First-order theme	Example Quotes
Increasing communication	Hold discussion groups More information on parent involvement needs in school Provide parent with more information on the clubs available at school Ask parents to come in during PE time to promote clubs Parent Council meetings open to all parents	*'It would be nice if like the parent's council could just have something to get everybody involved… not just for the Parent Council but for anybody to come. There's not really a thing that people can like go to, to voice an opinion. So, it would be probably easier… if they have like maybe a meeting that anybody could come to.' (R.1 Parent 4)*
New methods of encouraging parent involvement	Coffee morning to allow parents to connect Text messages could be sent to encourage parents Involving parents and school staff could change relationships Informal open afternoon for parents to show support for the school Open days or activities to be involved in Parent-child joint activities	*'…if the parents and the school work together and came up with a program together… then I think it would be more successful.' (R.2 Parent 11)*
	Parent and teachers could design and parent involvement program together Pay the parent Family school trips Fundraising to bring parents together Involve parents in health activities at home Should have a parent champion to encourage parent involvement Parent input could make events more successful	*'You need to have someone that's quite positive about it and really up for it to show other people, do you know what you can actually learn and experience. Then it can be like I never actually knew this, are you aware of this, this is something we can actually take forward.' (R.3 Parent 16)*
Improving upon current parent recruitment strategies	Provide parents with information on meetings beforehand Providing feedback options for parents (e.g., suggestion box and questionnaires) Provide sufficient and effective notice Have various times of events to accommodate all parents Schools should ask parents if they want to be involved School should take over organizing events (commonly the Parent Council do this) Teachers could do more to encourage parents Parents should remain in communication with each other Parents should be able to support the school in their decisions without having to be involved	*'But yeah have more things on at the evening and more thing on in the weekend.' (R.4 Parent 12)*

Note. PE = physical education.

Figure 1. Overall and second order themes

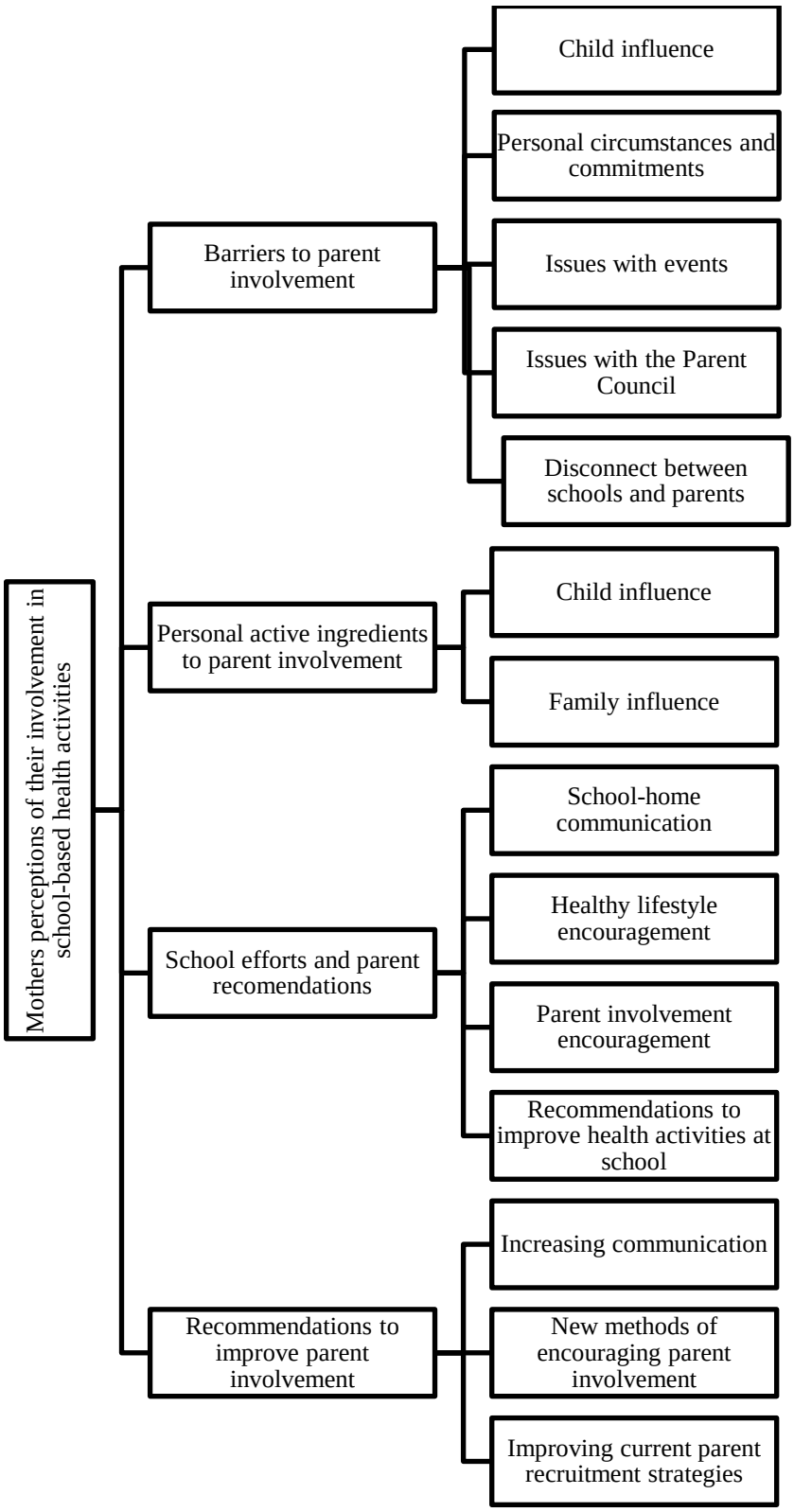

Figure 1. Mothers perceptions of their involvement in school-based health activities including the overall and second-order themes which emerged from the analysis process.